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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/534,880	03/24/2000	Shannon M. Nelson	North-391A/A-	2654

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EXAMINER

SEDIGHIAN, REZA

ART UNIT PAPER NUMBER

2633

DATE MAILED: 08/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/534,880

Applicant(s)

NELSON ET AL.

Examiner

M. R. Sedighian

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

1. This communication is responsive to applicant's 1/22/02 amendments in the application of Shannon M. Nelson et al. for "Shock resistant backplane utilizing infrared communication scheme with electrical interface for embedded systems". The amendments have been entered. Claims 1-9 are now pending.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-6, and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US patent No: 5,986,785) in view of Huynh et al. (US patent No: 5,349,461).

Regarding claims 1 and 6, Kobayashi discloses a system (col. 1, lines 5-15) for operatively interconnecting modules (21, 22, 23, 24, fig. 3) within an electronic apparatus (col. 1, lines 11-14, col. 2, lines 59-61 and fig. 1) to enable data to be transmitted and received therebetween (col. 3, lines 27-32), comprising: a first transceiver module (24, fig. 3), a second transceiver module (25, fig. 3), and a single conductor path connecting the first and second modules to facilitate bi-directional communication therebetween (the path that connects module 24 to module 25). Kobayashi differs from the claimed invention in that Kobayashi does not specifically disclose the system is a shock resistant system, and the system is used for interconnecting modules within a computer. Kobayashi discloses an electronic apparatus (col. 1, lines 10-15 and 61, fig. 1) such as a pocketbooks and note type word processor that has a casing (col. 2, lines 60-61 and fig. 1). Therefore, it would have been obvious to a person of ordinary

skill in the art that an electronic apparatus such as the one of Kobayashi can be used within a computer system in order to provide a bi-directional data communication between a plurality of sub-system elements of the computer. As to a shock resistant system, it is inherent that electrical or optical components are housed within a housing for the reason of safety and protection. It would have been obvious to provide a house to a system in order to protect it's components and to provide safety to users. Kobayashi further differs from the claimed invention in that Kobayashi does not specifically disclose the first module has a tri-stateable digital transmitter and a digital receiver, and the second module has a tri-stateable digital transmitter and a digital receiver. Huynh discloses a first (1, fig. 1) and a second (2, fig. 1) module, wherein the first module (1, figs. 1, 2, 3) has a tri-stateable digital transmitter (col. 3, lines 40-49 and 12, fig. 3) and a digital receiver (col. 3, lines 54-56 and 13, fig. 3), and the second module (2, figs. 1, 2, 3) has a tri-stateable digital transmitter (23, fig. 3) and a digital receiver (17, fig. 3), and a single conductor path (3, fig. 1) that connects the first and second modules (1, 2, fig. 3) to facilitate bi-directional communication therebetween (col. 3, lines 18-23), and wherein the data transmitted and received by the modules substantially conforming to a standardized infrared communications scheme protocol (col. 3, lines 25-36). Therefore, it would have been obvious to an artisan at the time of invention to incorporate transceiver modules with transmitters and receivers such as the ones of Huynh for the transceiver modules of Kobayashi in order to provide a multipoint transmission system that can provide a digital optical data transmission to increase the transmission speed and transmission capacity of the system.

Regarding claims 3 and 8, Kobayashi discloses the first and second modules (24, 25, fig. 3) are housed within an enclosure (61, fig. 1).

Regarding claims 4 and 9, Kobayashi discloses the first and second modules are operative to run an embedded application (col. 4, lines 29-30).

Regarding claim 5, Huynh further discloses the system comprises a multiplicity of modules (11, 12, 13, 14, 15 and 17, 18, 19, 22, 23, figs. 3), wherein each respective one of the multiplicity of modules has at least one transmitter (12 and 23, fig. 3) and a receiver element (13 and 17, fig. 3) formed thereon and each respective one of the multiplicity of modules being electrically interfaced to one another (the modules 11, 14, 15 and modules 18, 19, 22 are electrically interfaced to one another, fig. 3).

4. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US patent No: 5,986,785) in view of Huynh et al. (US patent No: 5,349,461) and in further view of Matsubara et al. (US Patent No: 6,335,812).

Regarding claims 2 and 7, the modified communication systems of Kobayashi and Huynh further differ from the claimed invention in that Kobayashi and Huynh do not disclose a standardized infrared communications scheme protocol developed by the Infrared Data Association. Matsubara discloses a plurality of communication modules (110, 111, fig. 2) that communicate based on an infrared scheme protocol developed by the infrared data association. (col. 1, lines 10-18). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a data transfer protocol defined by IrDA such as the one of Matsubara for the modified communication system of Kobayashi and Huynh in order to provide point-to-point or one-to-multiple data link for transferring data between a plurality of communication devices.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cucci et al. (US Patent No: 5,528,409) is cited to show digital transceiver modules (col. 4, lines 17-34 and 14, 58, fig. 1) that are electrically interfaced with each other (56, fig. 1), and the data transmitted and received by the modules substantially conform to standardized infrared (20, 22, 50, 64, fig. 1) communication scheme protocol.

Kekas et al. (US Patent No: 4,527,285) is cited to show a shock-resistant system (figs. 9, 10) for operatively interconnecting modules within a computer system (fig. 14) to enable data to be transmitted and received therebetween (col. 3, lines 9-30, 50-65, col. 4, lines 30-45).

6. Applicant's arguments with respect to claims 1 and 6 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad R Sedighian whose telephone number is (703) 308-9063. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314 .

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



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